



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

CK

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,224	03/16/2004	Yoshihisa Taguchi	0941.70078	2011

7590 09/19/2006

Patrick G. Burns, Esq.
GREER, BURNS & CRAIN, LTD.
Suite 2500
300 South Wacker Dr.
Chicago, IL 60606

EXAMINER

CHUNG, DAVID Y

ART UNIT PAPER NUMBER

2871

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/801,224

Applicant(s)

TAGUCHI, YOSHIHISA

Examiner

David Y. Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 9-14, 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. 6,636,288) in view of Saito et al. (U.S. 6,300,997).

As to claims 9 and 10, Kim discloses a gate and data signal interconnection using a plurality of flexible transmission films. Note in figure 1, the gate transmission films 120, gate driving IC 140, terminals C3-C6, and the signal wires 124. The signal wires 124 connect between the terminals C3-C6 that are aligned along the edge of the transmission film and connect to the gate input terminals 122 of gate driving IC 140. See column 3, line 30 – column 4, line 42.

Kim does not disclose a test pad formed on a portion of the input signal wire. Saito discloses test pads 62 and 63 shown in figure 3 in order to test whether the interconnecting condition is satisfactory. See column 5, lines 23-42. The test pads 62 and 63 shown in figure 3 appear to be formed by widening a portion of the patterned wire. It would have been obvious to one of ordinary skill in the art at the time of

invention to include test pads as disclosed by Saito in the device of Kim in order to test connections and signal transmissions to ensure a non defective display device.

As to claim 11, note the gate interconnection wires 136 shown figure 1 of Kim. These wires are formed on the LCD panel substrate and connect between the input signal wires 124 on adjacent gate transmission films.

As to claim 12, note in figure 1, the data transmission films 110 having data driving IC 130 formed thereon and the signal input substrate (printed circuit board) 100. Kim teaches that the circuit board 100 outputs gate and data signals or driving the device. See column 3, lines 49-54.

As to claim 13, the through wire 136 shown in figure 1 connects the output terminals C5 of one transmission film to the input terminals C6 of the adjacent transmission film.

As to claim 14, the input signal wire 124 connects the input terminal C3 to the output terminal C5 of each transmission film.

As to claims 16 and 17, Saito discloses two sets of test pads 62 and 63 in figure 3 in order to test the interconnection to both lead terminals 55a and 56a. Kim shows a similar structure in figure 1 in that test pads need to be formed to test the

interconnection to both lead terminals C3 and C5. Therefore, two sets of test pads would be required to achieve this, with a set of test pads adjacent to each set of lead terminals. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a set of test pads adjacent to each set of lead terminals in figure 1 of Kim in order to be able to test the interconnection to both lead terminals.

2. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. 6,636,288) in view of Ukita (U.S. 6,930,744) and in further view of Ueda (U.S. 6,952,250).

Kim discloses an active matrix liquid crystal display having an active matrix substrate with thin film transistors arranged in a matrix pattern. See figures 1 and 2. Kim et al. does not disclose attaching the transmission films via an anisotropically conductive resin. However, this was a common practice as evidenced by the disclosure of Ueda. See column 2, lines 1-35. It would have been obvious to one of ordinary skill in the art at the time of invention to use an anisotropically conductive resin because it was a reliable material for attaching a flexible film to a panel substrate.

Response to Arguments

Applicant's arguments with respect to claims 9-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Y. Chung whose telephone number is (571) 272-2288. The examiner can normally be reached Monday thru Friday from 8:30 am to 5:00 pm. If successive attempts to contact the examiner are unsuccessful, the examiner's supervisor David C. Nelms can be reached at (571) 272-1787.

David Chung
GAU 2871
09/12/06

Andrew Schechter
ANDREW SCHECHTER
PRIMARY EXAMINER